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Via e-mail to regcomments@ncua.gov.

March 9, 2010

The Honorable Debbie Matz
Chairman, National Credit Union Administration
1775 Duke Street
Alexandria, VA 22314-3428

The Honorable Michael E. Fryzel
Board Member, National Credit Union Administration

The Honorable Gigi Hyland
Board Member, National Credit Union Administration

Re: Comments on Proposed Revisions to Part 704

1. Background Comments

Over the last thirty years, corporate credit unions (CCUs) have played a significant role in providing treasury, correspondent, liquidity/credit, investment, and other ancillary services (such as ALM and investment advisory) for their natural-person credit union (NPCU) members in an efficient and cost-effective manner. Prior to the development of the CCU network in the late 1970's, NPCUs had no or few providers of the full array of these services due to their relative small size. Many NPCUs (particularly small and medium-sized NPCUs) still rely extensively (and in some cases exclusively) on CCUs for the provision of these services. While NPCUs are currently upset over the writedown of their contributed capital accounts at CCUs, the loss of CCUs would force NPCUs to use other service providers, often at higher cost and less efficiency. Take payment systems for example. If NPCUs couldn't settle through CCUs, they would have to settle through the Fed or correspondent banks, paying higher fees and receiving significantly less interest income on their settlement balances. CCUs pay approximately the overnight fed funds rate on settlement balances, whereas correspondent banks pay up to 100 basis points (bp) lower and the Fed, until last year, paid zero.

A bit of math will demonstrate the material financial impact that this has had on NPCUs. Between 1978 and 2008, the 30-year span during which CCUs have been in business, NPCUs have had about 5% of their total assets in overnight settlement accounts at CCUs. Average total assets in all NPCUs during this span were around \$475 billion, 5% of which (or approximately \$24 billion) was in overnight accounts at CCUs. Had these settlement balances been at the Fed or correspondent banks, the opportunity cost would have averaged approximately 2% annually. Thus, the cumulative savings to NPCUs is calculated to be around \$14.4 billion (30 years times \$24 billion times 2%). Even if NPCUs write off 100% of their contributed capital (\$3.5 billion on 6/30/08) at CCUs, settling through CCUs for the past 30 years has boosted NPCU total capital by almost \$11 billion. This is a significant amount given that total capital at all NCUSIF-insured NPCUs on 6/30/08 was \$92 billion and they had an aggregate total capital to total asset ratio of 11.5% on that date. Had NPCUs not realized the cumulative earnings generated by settling through CCUs over those 30 years, their 6/30/08 total capital would have been reduced by 12% and their aggregate capital to total asset ratio would have fallen approximately 140 bp to 10.1%.

If we didn't have a CCU network, where would NPCUs obtain loans during periods of low liquidity? Liquidity loans through the Fed would be difficult (if even possible) for many NPCUs to obtain and the majority of NPCUs are not members of the Federal Home Loan Bank System (FHLBS). Those NPCUs that are FHLBS members will find that their credit lines at Home Loan Banks are limited due to collateral requirements. That leaves credit lines through commercial banks as a possible alternative. However, these lines would be limited and very expensive.

I mention these two services (payment systems/settlements and liquidity) that are currently offered to NPCUs through the CCU network since they were the foremost needs of NPCUs that led to the development of the CCU network in the late 1970's. Still today, it is imperative for the financial wellbeing of NPCUs (and the members they serve) that the CCU network be preserved. CCUs need to have balance sheets to offer these services since these, and many other services that CCUs provide to NPCUs, cannot be provided off-balance sheet. Thus, the proposed changes to Part 704 must not be so restrictive that they preclude CCUs from being able to offer these services in a profitable manner that allows CCUs to internally generate adequate levels of capital (i.e., retained earnings).

2. CCU Legacy Assets

While the proposed changes to Part 704 don't address legacy assets, it is important that this matter be resolved since it will be very difficult for CCUs to recapitalize by issuing contributed capital to NPCUs with the uncertainty of CCUs' legacy assets lingering. Even though the mechanics may not have been worked out yet, it is clear that resolution of this matter will likely involve the NCUSIF acquiring legacy assets from CCUs. Two points on this matter: (a) this needs to happen before recapitalization efforts are commenced later this year, and (b) the prices paid for legacy assets need to be in line with projected losses rather than still depressed market prices so that the remaining capital at CCUs is not completely depleted.

3. Part 704.8 – Asset/Liability Management

This section of the Proposed Rule has a detrimental impact on a CCU's profitability and ability to internally build capital. I could not develop a business model that complied with the requirements of paragraph 704.8(e) and still allowed a CCU to generate sufficient earnings (i.e., an annual operating ROA in the 20 bp range) to reach a 45 bp retained earnings ratio in three years and a 100 bp retained earnings ratio in six years.

In the "Sample CCU "A" Balance Sheet" example on page 89 in the Preamble, there were numerous errors. Most obvious was the fact that total assets did not equal the sum of total liabilities and capital. The sum of overnight deposits, long-term certificates and borrowings should have been \$9,500,000, yet they added up to only \$9,450,000. This error resulted in incorrect WAL and effective duration calculations. In calculating WALs and effective durations, mixes were misspecified since they failed to use total assets as a scaling factor.

As a technical note, the term modified duration was used throughout the Preamble. Effective duration should have been used. Modified duration measures price sensitivity at a point, like for a 1 bp change in rates, while effective duration measures the average percent change in a cash flow's value over a rate-change span, for example over a + or -300 bp range. Given that modified duration only measures price sensitivity over a very short rate-change span, it cannot take convexity into account. Effective duration does not have this shortcoming and, therefore, is the preferred duration measurement. I think the intent was to use effective duration, but it was referred to as modified duration in the Preamble. However, duration was referred to as effective duration on page 94 of the Preamble. The use of effective duration is advised.

There were several notable errors in the "CCU A: 300 bp Increase in Interest Rates" example on page 90 in the Preamble. These errors are illustrated and explained in Appendix 1 which is attached at the end of these comments. (1) NCUA included asset capital notes in the WAL, duration, and NEV calculations, even though NCUA had intended to exclude them. (2) NCUA's calculations of asset and liability WALs were incorrect since they used total earning assets and total liabilities as scaling factors rather than total assets. Thus,

NCUA's calculated balance sheet WAL (.8129 yrs) was incorrect. The correct balance sheet WAL was .8185 yrs. While this error was small, it could have been materially greater had the CCU had either a lower earning asset mix or a higher total capital ratio. (3) Likewise, NCUA's calculations for asset, liability, and balance sheet effective durations were also flawed due to these scaling errors, which would result in an incorrect implied +300bp NEV volatility and an incorrect post-rate shock NEV ratio. The metric used by NCUA in the example to calculate NEV volatility at one time was used by the Office of Thrift Supervision, but has never been used by NCUA. NEV volatility is the percent change in NEV over the rate-shock range. It is defined as the dollar change in NEV divided by the dollar amount of base NEV. In the example, NCUA defined NEV volatility as the percent change in the NEV ratio. The CCU's +300 bp NEV volatility was actually -16.06%, yet NCUA calculated this NEV volatility to be -14.80%. This error was significant since the proposed NEV volatility limit is -15% in Part 704.8(d)(1)(iii).

The example "CCU A: 300 bp Spread Widening" on pages 91-92 of the Preamble also contains errors that led to faulty conclusions concerning the CCU's AL NEV volatility. Appendix 2 attached to these comments demonstrates the following errors. (1) NCUA understated borrowings by \$50,000, thus total assets didn't equal the sum of total liabilities and capital. This led to a 15% overstatement of base NEV and a 31% understatement of +300 bp AL NEV volatility. (2) Component earning asset and liability mixes weren't scaled to total assets, causing errors in the calculations of: balance sheet WAL, balance sheet effective duration, balance sheet spread duration, +300 bp NEV volatility, +300 bp NEV ratio, +300 bp AL NEV volatility, and +300 bp AL NEV ratio. The CCU's actual +300 bp AL NEV volatility was -37.4%, rather than NCUA's incorrectly calculated -25.8%. The proposed policy limit for +300 bp AL NEV volatility in paragraph 704.8(e)(1)(iii) is -15%.

The example on pages 99-101 in the Preamble attempts to demonstrate that a CCU could generate sufficient earnings (i.e., a 21 bp annual operating ROA) to have a retained earnings ratio in excess of 45 bp at the end of three years and 100 bp at the end of six years, while satisfying the 300 bp spread-widening requirements of paragraphs 704.8(e)(1)(ii) and (iii). Unfortunately, the example contains a math error and several unlikely assumptions. The elementary math error in footnote 56 on page 100 states that the CCU's balance sheet WAL mismatch is .16 years, when in fact it is .15 years. More importantly, the example's assumptions are flawed. The CCU's term CD liability mix in the example is 70% and the O/N share liability mix is 30%. These mixes are out of line with typical CCU CD and O/N share mixes. Historically, the O/N share mix is 50% to 60%, while the share CD mix is 40% to 60%. Likewise, on the asset side of the balance sheet, the example uses a 30% O/N investment mix and a 70% term investment mix. From a historical perspective, the O/N investment mix is understated and the term investment mix is overstated. However, the biggest flaw is the 200 bp spread to LIBOR assumed for private student loan ABS. Typical spreads on AAA-rated ABS are in the 20 to 40 bp range depending on WAL. For an ABS to have a 200 bp spread, it would have to be non-investment grade. This assumption was critical since the example had 10% of the CCU's earning assets invested in 200 bp spread ABS. (This example, with NCUA's assumptions, is restated in Appendix 3 attached to these comments.) Reducing that spread to a more typical 30 bp (investment grade product) would reduce the CCU's gross spread and operating ROA 17 bp. So, instead of the CCU obtaining a 21 bp operating ROA, the actual operating ROA would have been a mere 4 bp as demonstrated in the attached Appendix 4. Consequently, the CCU's retained earnings ratio in three years would be only 12 bp and only 24 bp in six years.

In the attached Appendix 5, more typical O/N investment, O/N share, and term CD mixes were used. The CCU's asset WAL was also increased from .50 years to .75 years and the CCU's 17 bp net operating expense ratio was left unchanged. The resulting annual operating ROA increased to 10.5 bp; however, the CCU's retained earnings ratio at the end of three years rose to only 32 bp and its retained earnings ratio at the end of six years increased to 63 bp. The CCU still failed to reach a 45 bp mandated retained earnings ratio in three years and a 100 bp mandated retained earnings ratio in six years. Also, increasing the CCU's asset weighted-average life to .75 years resulted in its +300 bp AL NEV volatility to be -20.4%, which is in excess of the proposed Part 704.8(e)(1)(iii)'s -15% limit. Appendix 5 demonstrates that the -15% AL NEV volatility limit is too tight.

In order to attempt to achieve the retained earnings ratio mandates at the end of years three and six, the CCU's asset WAL was increased from .75 years to 1.00 years in the attached Appendix 6. While the CCU's annual operating ROA increased from 10.5 bp to 13.0 bp, it still fell short of achieving the mandated retained earnings ratio levels at the end of years three and six. Meanwhile, increasing the asset weighted-average life to 1.00 year caused the magnitude of the CCU's +300 bp AL NEV volatility to increase from -20.4% to -38%. The CCU in Appendix 6 would have to reduce its net operating expense ratio from 13 bp to 11 bp in order to generate an annual 15 bp operating ROA. This would be highly unlikely since, based on 11/30/09 Form 5310 data, net operating expense ratios at CCUs, excluding U.S. Central, averaged about 18 bp. Only six of the 26 non-wholesale CCUs had net operating expense ratios below 11 bp. This example makes it clear that CCUs will have difficulty in meeting the mandated retained earnings ratio requirements in the proposed Part 704 and that the +300 bp AL NEV volatility limit of -15% needs to be increased to -40%.

Recommendation: The NEV +300 bp AL NEV volatility limit in Part 704.8(e)(1)(iii) be changed from -15% to -40%.

4. Other Part 704.8 Recommendations

Recommendation: Part 704.8(c) be re-worded to read: A corporate credit union may permit share certificate withdrawals on a mark-to-market basis.

Requiring that early withdrawal penalties be at the lesser of book value plus accrued dividends or the value based on a market-based penalty sufficient to cover the estimated replacement cost of the certificate redeemed would make it more difficult for CCUs to issue term CDs vis-à-vis marketable securities.

Recommendation: Proposed Part 704.8(f) be eliminated.

The 50% slowdown in prepayment speeds assumption will already be taken into account in the NEV volatility testing mandated in Part 704.8(d). Further, the reductions in prepayment speeds should be taken into account in the additional NEV stress testing required in Part 704.8(d)(2).

Recommendation: In Part 704.8(g), a 25% maximum decline in net interest income should be included.

For most CCUs, a 25% reduction in net interest income would translate into about an 8 bp to 10 bp reduction in operating ROA. Such a reduction in operating ROA would push operating ROAs down to near 10 bp. CCUs need to have annual operating ROAs in the 15 bp to 25 bp range to achieve minimum retained earnings ratios in years three and six.

Recommendation: Eliminate Part 704.8(h) completely.

As demonstrated in the attached Appendix 6, it is unlikely that CCUs can operate with asset WALs in excess of one year without exceeding the -300 bp AL NEV volatility limits, even if these volatility limits were -40%.

Recommendation: In Part 704.8(k), increase the limit from 10% of CCU DANA to 20%.

Given that CCUs have limited external liquidity sources, a 10% of DANA limit is too restrictive.

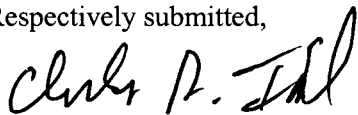
5. Recommendation: Eliminate proposed paragraph 704.14(a)(2).

Requiring that individuals have the title of either CEO, CFO, or COO is no assurance that a director is qualified to serve on a CCU board.

6. Recommendation: In Part 704.14(a)(3), change the maximum time that an individual can serve on a CCU board from six to twelve years.

It takes at least three years for a new CCU director to be oriented and trained into the operations of a CCU. Mandating a maximum six-year term would mean that directors would be precluded from serving for more than three years after they've gone through this training period.

Respectively submitted,

A handwritten signature in black ink, appearing to read "Charles R. Idol". The signature is fluid and cursive, with the first name "Charles" and last name "Idol" being clearly legible, and "R." in the middle.

Charles R. Idol, Ph.D.

Attached: Appendices 1-6

Appendix 1 - CCU A: +300bp Rate Increase p.90 Preamble

Assets	WAL (yrs)	Effective Duration	Par Value	Asset Mixes	+300bp Market Value	Asset WAL Calculation	Asset Effective Duration Calculation
Pvt.MBS	3.00	0.083%	\$ 1,000,000	0.100	997,510	0.3000	0.0083%
ABS	1.70	0.900%	2,000,000	0.200	1,946,000	0.3400	0.1800%
Corp.Bonds	1.50	0.900%	3,000,000	0.300	2,919,000	0.4500	0.2700%
Cash/Cash Equiv.	0.10	0.100%	3,850,000	0.385	3,838,450	0.0385	0.0385%
Cap.Instruments	3.00	0.083%	50,000	0.005	49,876	0.0150	0.0004%
Property	na	na	50,000	0.005	50,000	na	na
CUSO	na	na	50,000	0.005	50,000	na	na
Total Assets	1.1435	0.4972%	\$ 10,000,000	1.000	9,850,836	1.1435	0.4972%
Not NCUA's	1.1551	0.5022%					

NCUA Errors in the Example: (1) NCUA included asset capital notes in the WAL, duration and NEV calculations, even though NCUA had intended to exclude them. (2) NCUA's calculations of asset and liability WALs were incorrect since they used total earning assets and total liabilities as scaling factors rather than total assets. Thus, NCUA's calculated balance sheet WAL (.8129 yrs) was incorrect. The correct balance sheet WAL was .8185 yrs. While this error was small, it could have been materially greater had the CCU had either a lower earning asset mix or a higher total capital ratio. (3) Likewise, NCUA's calculations for asset, liability, and balance sheet effective durations were also flawed due to these scaling errors, which would result in erroneous implied +300bp NEV volatility and post-rate shock NEV ratio.

Liabilities	WAL (yrs)	Effective Duration	Par Value	Liability Mixes	+300bp Market Value	Liability WAL Calculation	Liability Effective Duration Calculation
O/N Deposits	0.10	0.100%	\$ 7,500,000	0.750	7,477,500	0.0750	0.0750%
Term CDs	1.00	0.950%	1,500,000	0.150	1,457,250	0.1500	0.1425%
Borrowings	2.00	0.240%	500,000	0.050	496,400	0.1000	0.0120%
Total Liabilities	0.3250	0.2295%	\$ 9,500,000	0.950	9,431,150	0.3250	0.2295%
Not NCUA's	0.3421	0.2416%					
PCC and NCA	3.00	0.083%	\$ 50,000	0.005	na	na	na
RE	na	na	450,000	0.045	na	na	na
Total Capital	na	na	\$ 500,000	0.050	na	na	na
Total Liab.and Cap.			\$ 10,000,000	1.000			

	Balance Sheet WAL	Balance Sheet Eff. Duration	+300bp NEV Volatility	+300bp NEV Ratio
Actual	<u>0.8185</u>	<u>0.2677%</u>	<u>-16.06%</u>	<u>4.26%</u>
Not NCUA's Implied	0.8129	0.2607%	-15.64%	4.28%

	Base	+300bp	+300bp NEV Change	Comments
Dollar NEV	\$ 500,000	\$ 419,686	\$ (80,315)	
NEV Ratio	5.00%	4.26%		
+300bp NEV Volatility		Actual	-16.06%	Actual NEV volatility exceeds -15%
		Not NCUA's	-14.80%	

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Appendix 2 - CCU A: +300bp Wider Spreads pp.91-92 Preamble

Assets	WAL (yrs)	Effective Duration	Par Value	Asset Mixes	300bp Spread Widening Market Value	Spread Duration	Asset Spread Duration Calculation
Pvt.MBS	2.00	0.083%	\$ 1,000,000	0.100	943,600	1.880%	0.1880%
ABS	1.50	0.800%	2,000,000	0.200	1,915,200	1.413%	0.2827%
Corp.Bonds	1.50	0.900%	3,000,000	0.300	2,872,700	1.414%	0.4243%
Cash/Cash Equiv.	0.10	0.100%	3,850,000	0.385	3,838,450	0.100%	0.0385%
Cap.Instruments	na	na	50,000	0.005	50,000	na	na
Property	na	na	50,000	0.005	50,000	na	na
CUSO	na	na	50,000	0.005	50,000	na	na
Total Assets	0.9885	0.4768%	\$ 10,000,000	1.000	9,719,950	0.9335%	0.9335%
Not NCUA's	1.0036	0.4841%				0.9477%	

NCUA Errors in the Example: (1) NCUA understated borrowings by \$50,000, thus total assets didn't equal the sum of total liabilities and capital. This led to a 15% overstatement of base NEV and a 31% understatement of +300bp AL NEV volatility. (2) Component earning asset and liability mixes weren't scaled to total assets, causing errors in the calculations of: balance sheet WAL, balance sheet effective duration, balance sheet spread duration, +300bp NEV volatility, +300bp NEV ratio, +300bp AL NEV volatility, and +300bp AL NEV ratio.

Liabilities	WAL (yrs)	Effective Duration	Par Value	Liability Mixes	300bp Spread Widening Market Value	Spread Duration	Liability Spread Duration Calculation
O/N Deposits	0.10	0.100%	\$ 7,500,000	0.750	7,477,500	0.100%	0.0750%
Term CDs	1.00	0.950%	1,500,000	0.150	1,457,250	0.950%	0.1425%
Borrowings	2.00	0.240%	500,000	0.050	472,222	1.852%	0.0926%
Total Liabilities	0.3250	0.2295%	\$ 9,500,000	0.950	9,406,972	0.3101%	0.3101%
Not NCUA's	0.3421	0.2416%				0.3264%	
PCC and NCA	3.00	0.083%	\$ 50,000	0.005	na	na	
RE	na	na	450,000	0.045	na	na	
Total Capital	na	na	\$ 500,000	0.050	na		
Total Liab.and Cap.			\$ 10,000,000	1.000			

	Balance Sheet WAL	Balance Sheet Eff. Duration	+300bp NEV Volatility	+300bp NEV Ratio	Balance Sheet Spread Duration	+300bp AL NEV Volatility	+300bp AL NEV Ratio
Actual	0.6635	0.2473%	-14.84%	4.32%	0.6234%	-37.40%	3.22%
Not NCUA's Implied	0.6614	0.2425%	-14.55%	4.34%	0.6213%	-37.28%	3.23%

	Base	+300bp	+300bp AL NEV Change	Comments
Dollar AL NEV	\$ 500,000	\$ 312,978	\$ (187,022)	Differences reflect NCUA's \$50,000 borrowings' understatement
		Not NCUA's \$ 360,200	\$ (139,800)	
AL NEV Ratio	5.00%	3.22%		Actual NEV volatility significantly exceeds -15%
		Not NCUA's -3.71%		
+300bp AL NEV Volatility		Actual -37.40%		
		Not NCUA's -25.80%		

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Appendix 3 - Retained Earnings Growth for NCUA CCU with 4% Capital, 200bp Spread on Pvt.Student ABS, and .50yr Asset WAL

Assets	Asset Mixes	WAL (yrs)	LIBOR/Swap Spread (bp)	Est.Spread Duration
Member Loans	0%	0.000	0	0.000%
FFELP Student ABS	20%	1.000	25	0.940%
Private Student ABS	10%	0.500	200	0.470%
Auto ABS	20%	0.600	25	0.564%
Credit Card ABS	10%	1.000	30	0.940%
Other ABS	10%	0.300	10	0.282%
Corporate Bonds	0%	0.000	0	0.000%
O/N Investments	30%	0.003	0	0.003%
Total Assets	100%	0.501	34.0	0.471%
		Asset WAL	Asset Yield	

Liabilities	Liability Mixes	WAL (yrs)	LIBOR/Swap Spread (bp)	Est.Spread Duration
O/N Shares	28%	0.003	0	0.003%
Term CDs	68%	0.500	0	0.470%
Borrowings	0%	0.000	0	0.000%
Total Liabilities	96%	0.341	0.0	0.320%
PCC and NCA	4%	na	0	na
RE	0%	na	0	na
Total Capital	4%	na	0.0	na
Total Liab.and Cap.	100%	0.341	0.0	0.320%
			Cost of Funds	

Cash Flow Mismatch: Balance Sheet WAL (yrs)	Balance Sheet Spread Duration	+300bp AL NEV Volatility	+300bp AL NEV Ratio	Investment Portfolio WAL (yrs)
0.160	0.150%	-11.28%	3.60%	0.501
Proposed Part 704.8 Limits		-15.00%	2.00%	2.000

Asset Yield (bp)	34.0
Cost of Funds (bp)	0.0
Gross Spread (bp)	34.0
Operating Expenses (bp)	30.0
Fee Income (bp)	-17.0
Net Operating Expenses (bp)	13.0
Operating ROA (bp)	21.0

Retained Earnings Growth	RE Ratio w/o Asset Growth	Part 704 Mandate
RE Ratio in 3 Years (bp)	63	45
RE Ratio in 6 Years (bp)	126	100

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**Appendix 4 - Retained Earnings Growth for NCUA CCU with 4% Capital,
30bp Spread on Pvt.Student ABS, and .50yr Asset WAL**

Assets	Asset Mixes	WAL (yrs)	LIBOR/Swap Spread (bp)	Est.Spread Duration
Member Loans	0%	0.000	0	0.000%
FFELP Student ABS	20%	1.000	25	0.940%
Private Student ABS	10%	0.500	30	0.470%
Auto ABS	20%	0.600	25	0.564%
Credit Card ABS	10%	1.000	30	0.940%
Other ABS	10%	0.300	10	0.282%
Corporate Bonds	0%	0.000	0	0.000%
O/N Investments	30%	0.003	0	0.003%
Total Assets	100%	0.501	17.0	0.471%
		Asset WAL	Asset Yield	

Liabilities	Liability Mixes	WAL (yrs)	LIBOR/Swap Spread (bp)	Est.Spread Duration
O/N Shares	28%	0.003	0	0.003%
Term CDs	68%	0.500	0	0.470%
Borrowings	0%	0.000	0	0.000%
Total Liabilities	96%	0.341	0.0	0.320%
PCC and NCA	4%	na	0	na
RE	0%	na	0	na
Total Capital	4%	na	0.0	na
Total Liab.and Cap.	100%	0.341	0.0	0.320%
			Cost of Funds	

Cash Flow Mismatch: Balance Sheet WAL (yrs)	Balance Sheet Spread Duration	+300bp AL NEV Volatility	+300bp AL NEV Ratio	Investment Portfolio WAL (yrs)
<u>0.160</u>	<u>0.150%</u>	<u>-11.28%</u>	<u>3.60%</u>	<u>0.501</u>
<u>Proposed Part 704.8 Limits</u>		<u>-15.00%</u>	<u>2.00%</u>	<u>2.000</u>

Asset Yield (bp)	17.0
Cost of Funds (bp)	0.0
Gross Spread (bp)	17.0
Operating Expenses (bp)	30.0
Fee Income (bp)	-17.0
Net Operating Expenses (bp)	13.0
Operating ROA (bp)	4.0

Retained Earnings Growth	RE Ratio w/o Asset Growth	Part 704 Mandate
RE Ratio in 3 Years (bp)	12	<u>45</u>
RE Ratio in 6 Years (bp)	24	<u>100</u>

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Appendix 5 - Retained Earnings Growth for CCU with 4% Capital and .75yr Asset WAL

Assets	Asset Mixes	WAL (yrs)	LIBOR/Swap Spread (bp)	Est.Spread Duration
Member Loans	5%	1.000	30	0.940%
FFELP Student ABS	10%	1.000	25	0.940%
Private Student ABS	5%	1.000	40	0.940%
Auto ABS	10%	1.000	25	0.940%
Credit Card ABS	10%	1.000	30	0.940%
Other ABS	10%	2.000	30	1.880%
Corporate Bonds	10%	1.500	25	1.410%
O/N Investments	40%	0.003	0	0.003%
Total Assets	100%	0.751	17.0	0.706%
		Asset WAL	Asset Yield	

Liabilities	Liability Mixes	WAL (yrs)	LIBOR/Swap Spread (bp)	Est.Spread Duration
O/N Shares	50%	0.003	-15	0.003%
Term CDs	46%	1.000	0	0.940%
Borrowings	0%	0.000	0	0.000%
Total Liabilities	96%	0.462	-7.5	0.434%
PCC and NCA	4%	na	25	na
RE	0%	na	0	na
Total Capital	4%	na	1.0	na
Total Liab.and Cap.	100%	0.462	-6.5	0.434%
			Cost of Funds	

Cash Flow Mismatch: Balance Sheet WAL (yrs)	Balance Sheet Spread Duration	+300bp AL NEV Volatility	+300bp AL NEV Ratio	Investment Portfolio WAL (yrs)
0.290	0.272%	-20.42%	3.25%	0.738
Proposed Part 704.8 Limits		-15.00%	2.00%	2.000

Asset Yield (bp)	17.0
Cost of Funds (bp)	6.5
Gross Spread (bp)	23.5
Operating Expenses (bp)	30.0
Fee Income (bp)	-17.0
Net Operating Expenses (bp)	13.0
Operating ROA (bp)	10.5

Retained Earnings Growth	RE Ratio w/o Asset Growth	Part 704 Mandate
RE Ratio in 3 Years (bp)	32	45
RE Ratio in 6 Years (bp)	63	100

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Appendix 6 - Retained Earnings Growth for CCU with 4% Capital and 1.00yr Asset WAL

Assets	Asset Mixes	WAL (yrs)	LIBOR/Swap Spread (bp)	Est.Spread Duration
Member Loans	5%	1.000	30	0.940%
FFELP Student ABS	10%	1.000	25	0.940%
Private Student ABS	5%	1.000	40	0.940%
Auto ABS	10%	2.000	35	1.880%
Credit Card ABS	10%	2.000	40	1.880%
Other ABS	10%	2.000	30	1.880%
Corporate Bonds	10%	2.000	30	1.880%
O/N Investments	40%	0.003	0	0.003%
Total Assets	100%	1.001	19.5	0.941%
		Asset WAL	Asset Yield	

Liabilities	Liability Mixes	WAL (yrs)	LIBOR/Swap Spread (bp)	Est.Spread Duration
O/N Shares	50%	0.003	-15	0.003%
Term CDs	46%	1.000	0	0.940%
Borrowings	0%	0.000	0	0.000%
Total Liabilities	96%	0.462	-7.5	0.434%
PCC and NCA	4%	na	25	na
RE	0%	na	0	na
Total Capital	4%	na	1.0	na
Total Liab. and Cap.	100%	0.462	-6.5	0.434%
			Cost of Funds	

Cash Flow Mismatch: Balance Sheet WAL (yrs)	Balance Sheet Spread Duration	+300bp AL NEV Volatility	+300bp AL NEV Ratio	Investment Portfolio WAL (yrs)
0.540	0.507%	-38.05%	2.55%	1.001
Proposed Part 704.8 Limits		-15.00%	2.00%	2.000

Asset Yield (bp)	19.5
Cost of Funds (bp)	6.5
Gross Spread (bp)	26.0
Operating Expenses (bp)	30.0
Fee Income (bp)	-17.0
Net Operating Expenses (bp)	13.0
Operating ROA (bp)	13.0

Retained Earnings Growth	RE Ratio w/o Asset Growth	Part 704 Mandate
RE Ratio in 3 Years (bp)	39	45
RE Ratio in 6 Years (bp)	78	100

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